



MARCORSYSCOM

"Equipping the Warfighter to Win!"



Performance Base Logistics for the Ground / Air Task Oriented Radar, 5 February 2004



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Manager -

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TOBYHANNA
ARMY DEPOT EXCELLENCE
IN ELECTRONICS

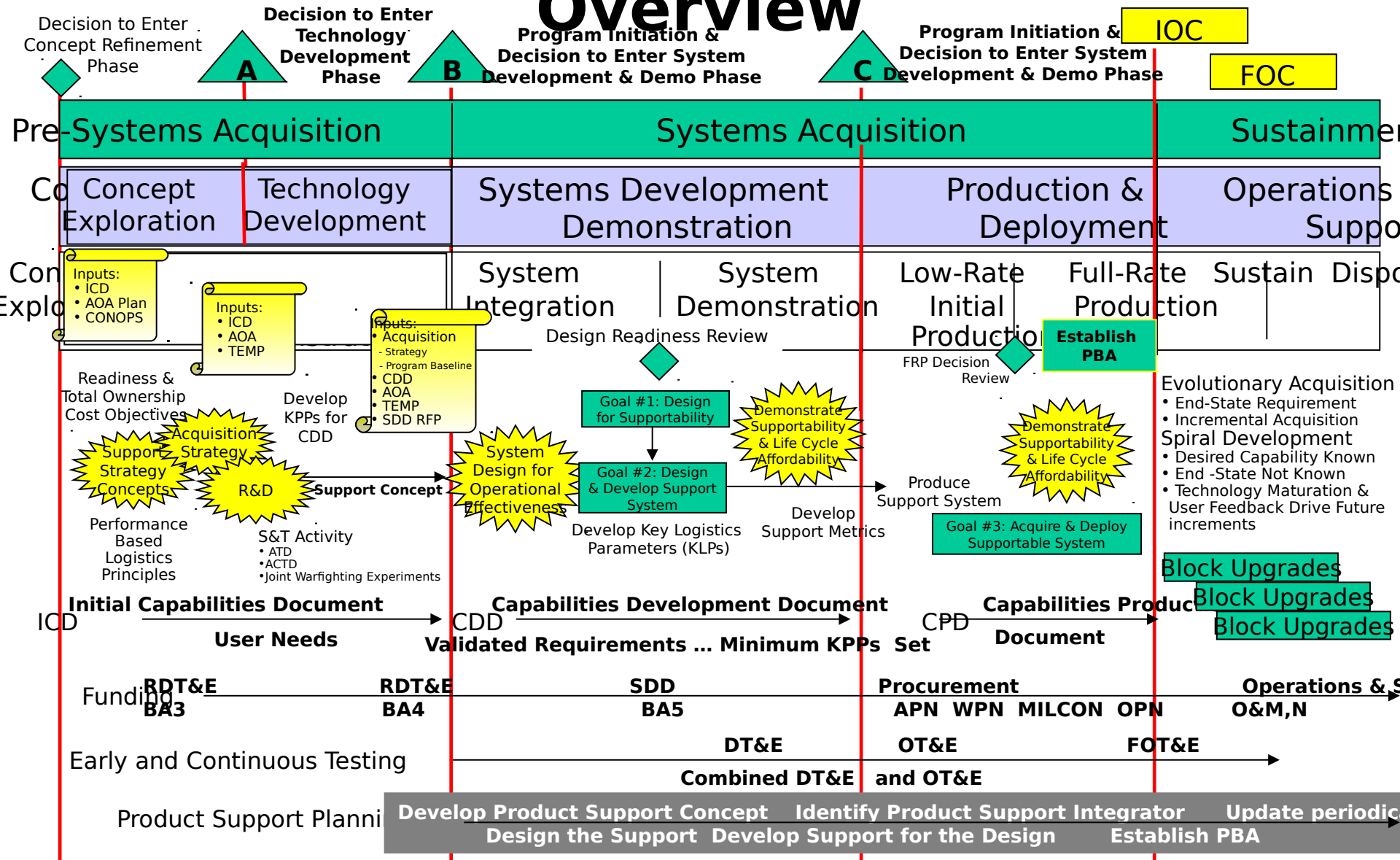


Discussion Points

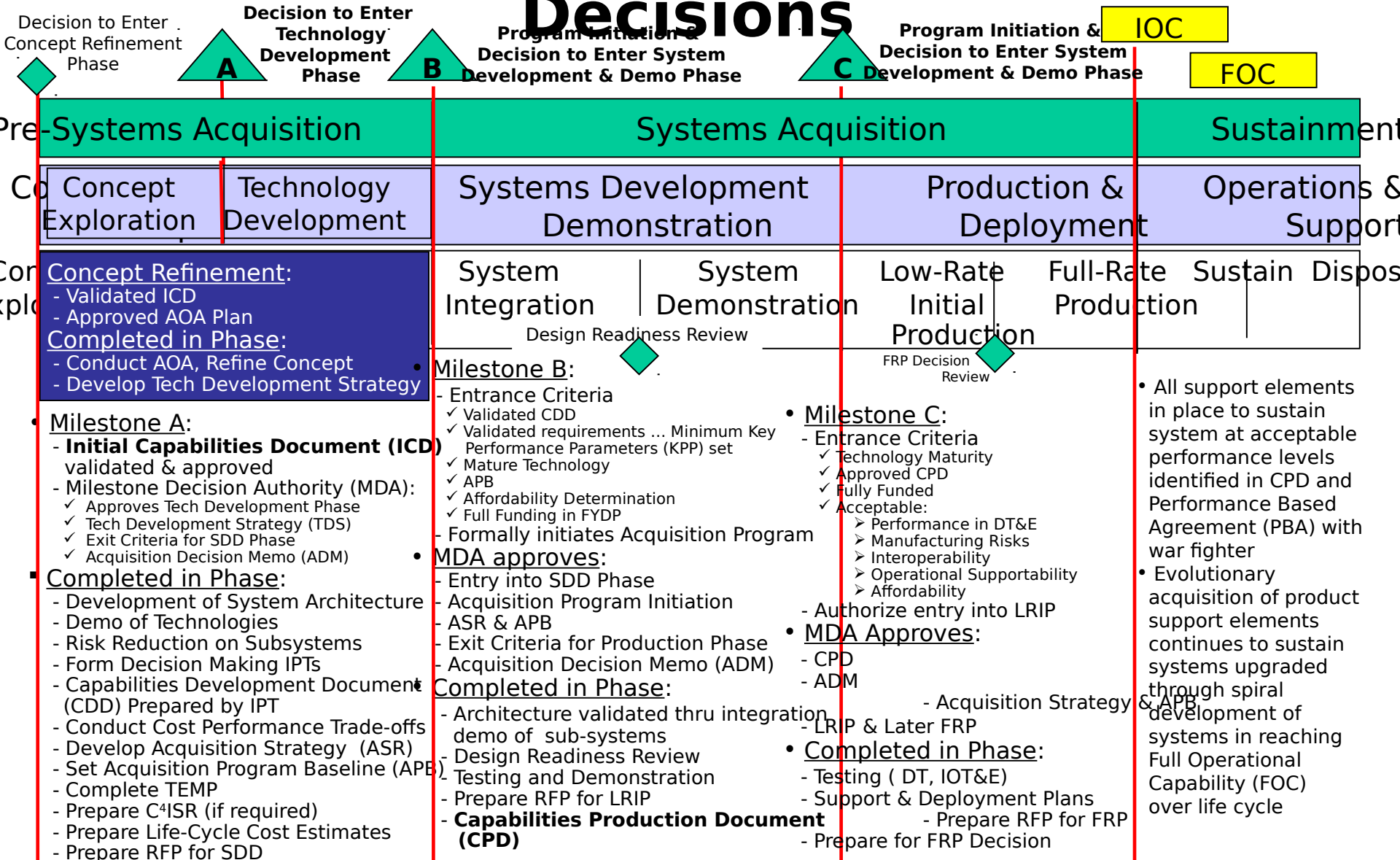


- DOD Acquisition Management Framework
- The beginnings of PBL
- IPT Roles & Responsibilities
- Business Case Analysis
- PBA Notional Approach
- PBA development
- Recommendations
- Questions & Ideas

New DoD Acquisition Management Framework - Five Phase Overview



New DoD Acquisition Management Framework - Documentation & Decisions



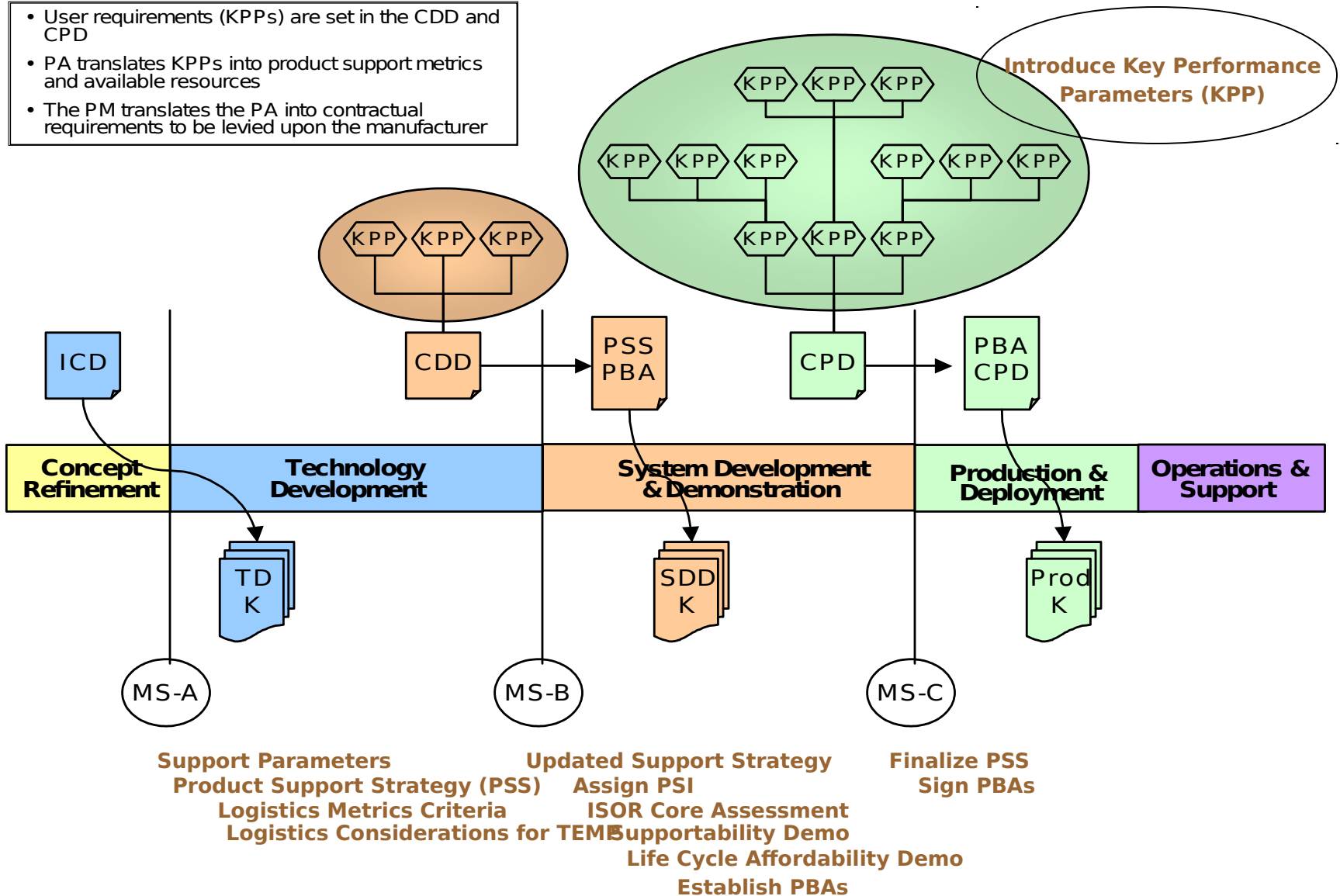
New DoD Acquisition Management Framework - TLCSM & PBL Template



Pre-Systems Acquisition		Systems Acquisition	
Concept Exploration	Technology Development	Systems Development Demonstration	Production & Deployment
<u>Consider Key Logistics Criteria:</u> • Forecast Operational Environment • Assess: - Functional Characteristics - Impact of System on Maintenance Capabilities Planned - Preliminary Manpower/Pers Requirements (Quantity, Skills, Uniform or Contractor) • Compilation of Info and Requirements • Initiate Development of Operating & Support Reliability Objectives, Benefits & Resource Requirements • Assess Concepts & Technology in using: - Embedded Diagnostics - Prognostics - Other Maintenance Enablers • Compile & Assess Data on Projected: - Sustainment Demand - Standardization - Required Support Equipment (SE) • Develop ROM Life Cycle Costs (LCC) <u>Key Logistics Info Compiled:</u> ▪ AOA Performance-Based Support Options ▪ Identify Support Parameters for CDD ▪ Market Analysis ▪ Identify Risks/Risk Mitigation Planning <u>Key Logistics Activities Completed:</u>		<u>Consider Key Logistics Criteria:</u> • More Discrete Requirements to Support Required Mission Operational Capabilities - Metrics to Drive Performance Outcomes (Reliability, Maintainability, & Availability - RMA) • Manpower/Pers Requirements • Refinement of LCC • Support-Related Performance/Acceptance Criteria to be Demo during Testing • Collection, Analysis & Eval of System RMA Performance Data to Determine Need for Design Changes (SDOE) • Logistics Support Considerations • Verify Support-Related Design Characteristics • Identify Product Support Integrator (PSI) • ISOR and Workload Assessment • Develop Initial PBL BCA • Set PSI Performance Outcomes/Requirements • Develop PBL Product Support Concept w/PBA <u>Key Logistics Info Compiled:</u> • Updated Support Strategy, Funding Required • Key Logistics Parameters (KLPs) • PBL BCA • Auditable ISOR Core Capability & Workload Assessment <u>Key Logistics Activities Completed:</u> • Updated ASR, APB, CPD, & TEMP • Acceptable Performance in DT&E • Life Cycle Affordability Demonstrated	
		<u>Consider Key Logistics Criteria:</u> • Ability of Sustainment Strategy to Meet Mission Capability Requirements • RMA Meets Performance Objectives • Goals for Manpower/Pers Validated • Final LCC Validated • Product Support: - Completed BCA on PBL Approach Selected - Completed, Approved & Funded Product Support/Sustainment Approach to Include: › Documented PBA Between: - PM, PSI and Force Provider Defining System Operational Performance Requirements - PM, PSI and Support Providers which Include Required Support Metrics Necessary to Meet System Performance Requirements. <i>Note: Support Providers may be Public, Private or Partnerships. Public providers can include depots, DLA, NAVICP, & DLA Distribution Depots</i> - Comprehensive Review of Support-Related Performance & Acceptance Criteria for Pre-IOC Supportability Assessment: › Verify Implementation & Execution of PBA › Verify Funding of O&S to Required Levels <u>Key Logistics Info Compiled:</u> • Updated Support Strategy within ASR • Updated Logistics Parameters in APB • Updated Logistics & Sustainment Criteria & Test Points • PBA Signed (PM, PSI, Warfighter; PM, PSI and Providers) <u>Key Logistics Activities Completed:</u> • Satisfaction of sustainment criteria in IOT&E • PBA	

From all of this, PBL Emerges...

- User requirements (KPPs) are set in the CDD and CPD
- PA translates KPPs into product support metrics and available resources
- The PM translates the PA into contractual requirements to be levied upon the manufacturer



PBL is the Enabler for Force-centric Logistics Enterprise

COMMON RELEVANT OPERATING PICTURE

Force Provider

End-to-End Distribution

Public Private Partnerships

Performance Based Logistics grid

Condition-Based Maintenance +

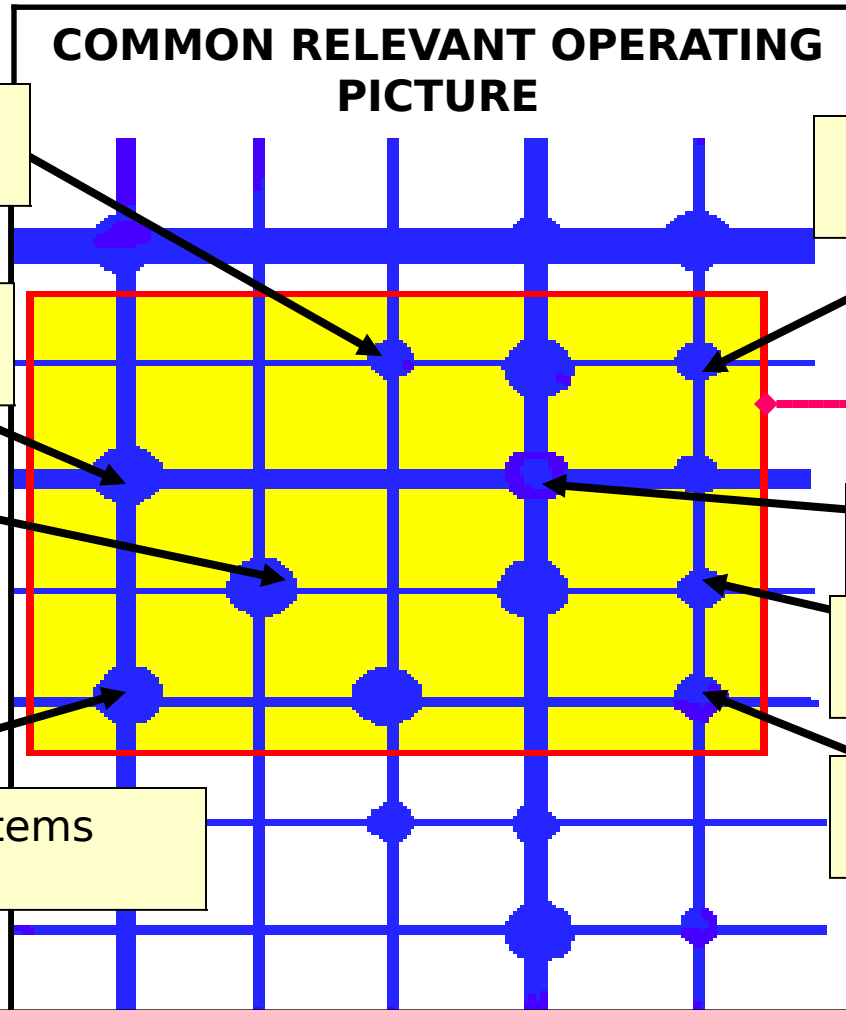
Executive Agents

Enterprise Integration

Total Life Cycle Systems Management

Product Support Integrator

The interaction at the grid points establishes the linkage of the Life Cycle Logistics elements.





IPT Challenges



What should an IPT be able to do?



**Ability to
collect accurate,
near real time data**



**Ability to assess the
data and make
informed decisions**



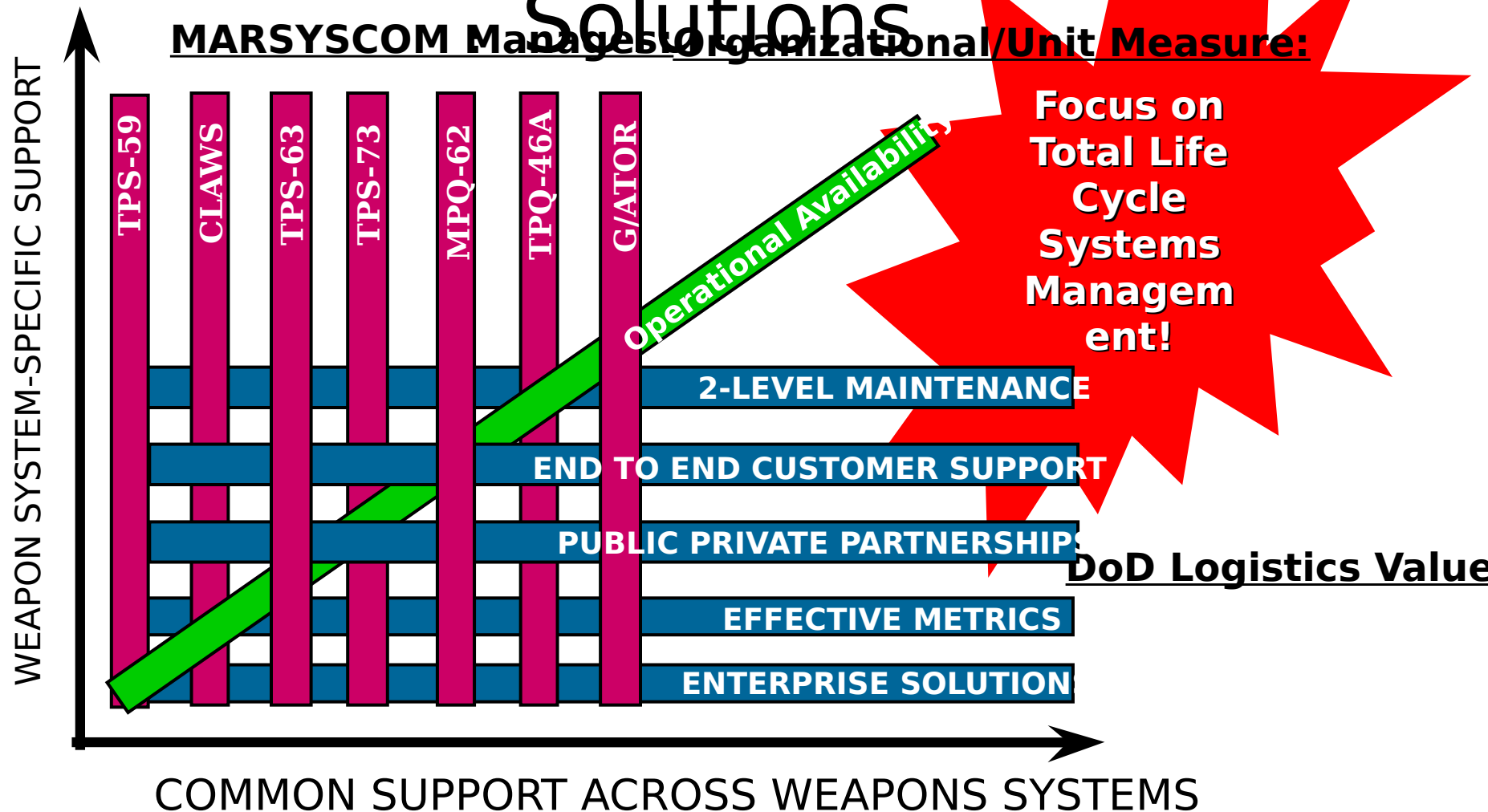
**Ability to have
complete, accurate,
real-time total
asset visibility**



**Funds Flow
Ability to fund
effectively
and manage execution**

**Organize
IPT's around
program
requirements
!**

The IPT Challenge: Integrating ALL of the Solutions

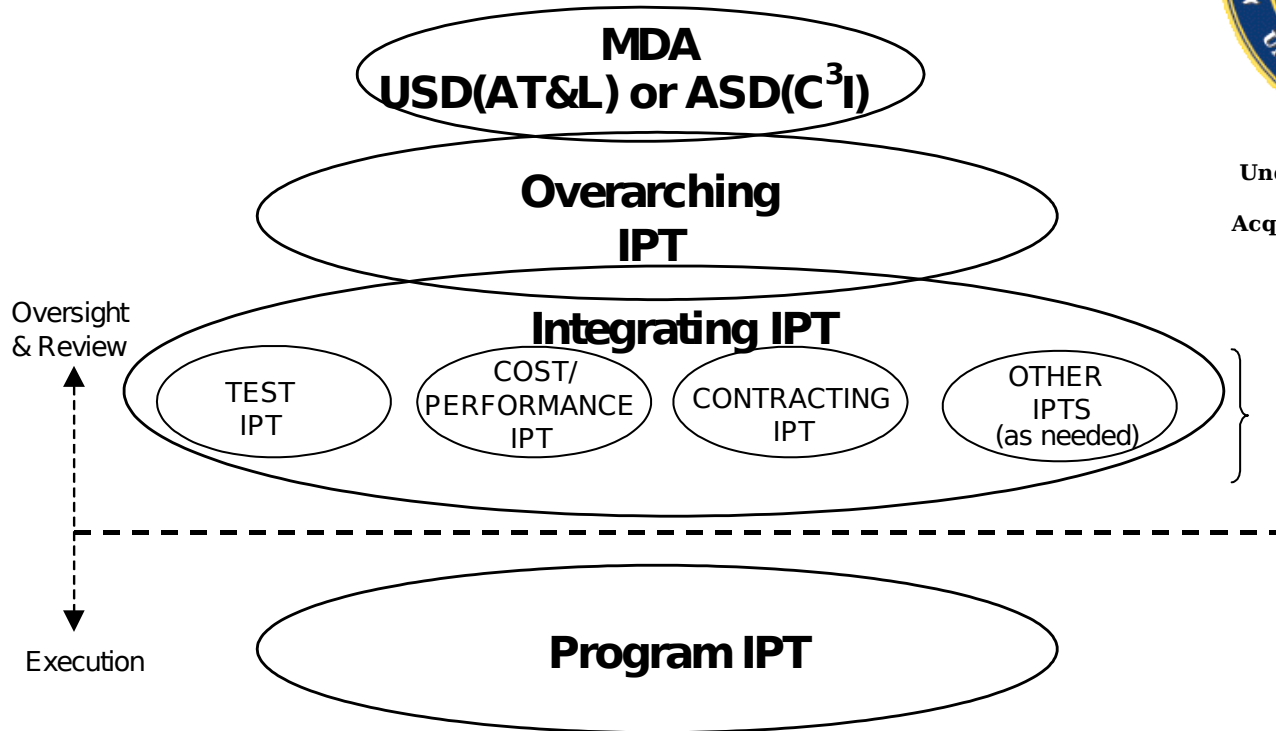


DoD IPT Operational Structure



Under Secretary of Defense
for
Acquisition, Technology and
Logistics

Assistant Secretary of
Defense for
Command, Control,
Communications
& Intelligence (C³I)

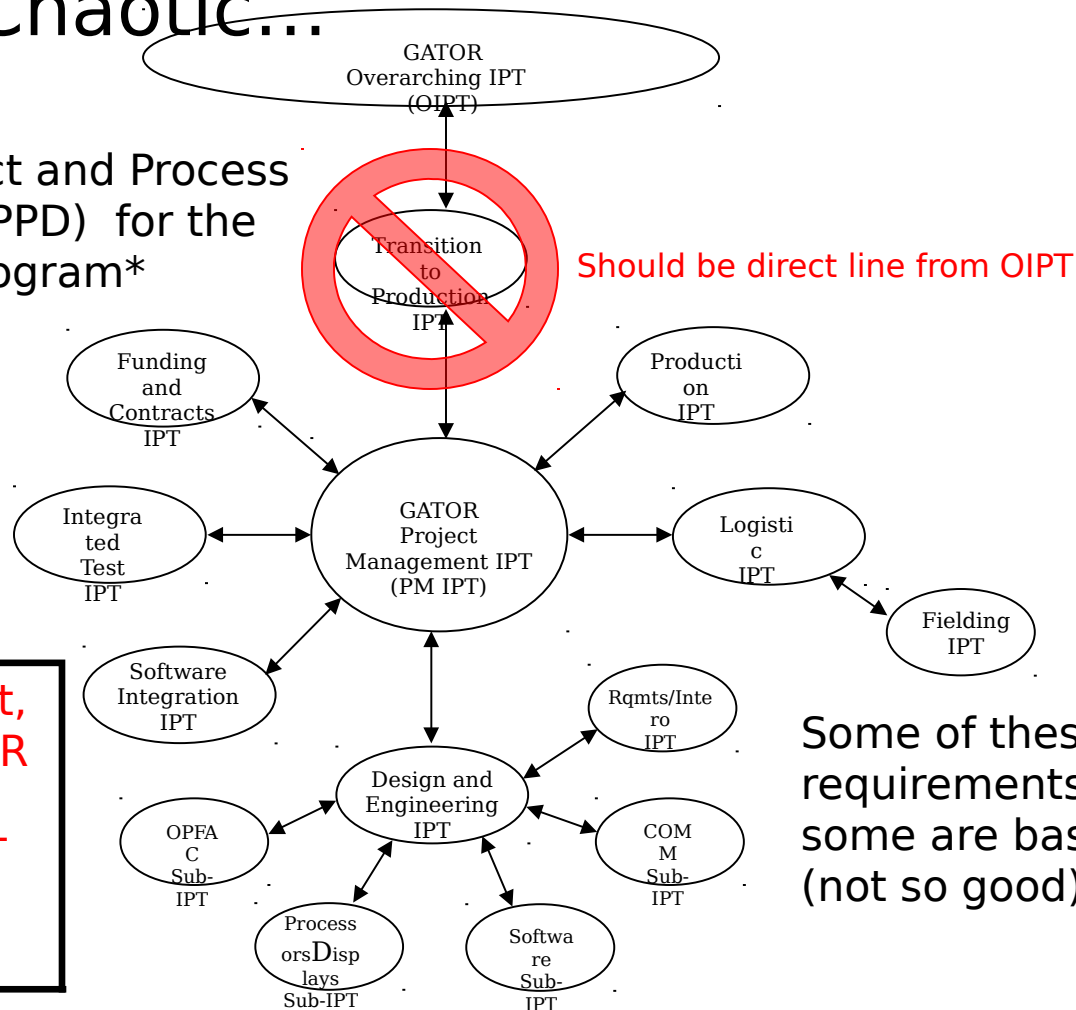


For each program, there will be an OIPT and at least one WIPT. WIPTs will focus on a particular topic, such as test, cost/performance, contracting, etc. An Integrating IPT will coordinate WIPT efforts and cover all topics not otherwise assigned to another IPT.

RULES OF THE ROAD: A GUIDE FOR LEADING
SUCCESSFUL INTEGRATED PRODUCT TEAMS, Revision
1 October 1999

A lot of IPT requirements identified, but it may be a bit Chaotic...

Integrated Product and Process Development (IPPD) for the G/ATOR Program*



If this was a fight, Could the G/ATOR Program Management IPT defend themselves?

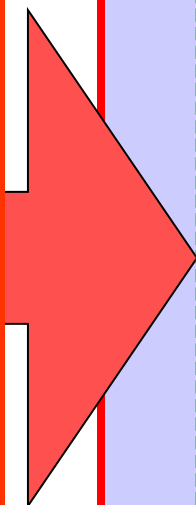
Some of these IPT's are requirements-driven (good), some are based on functions (not so good)

G/ATOR Integrated Product Teams Structure

IPPD is not easy – Managers **MUST** shift paradigms!

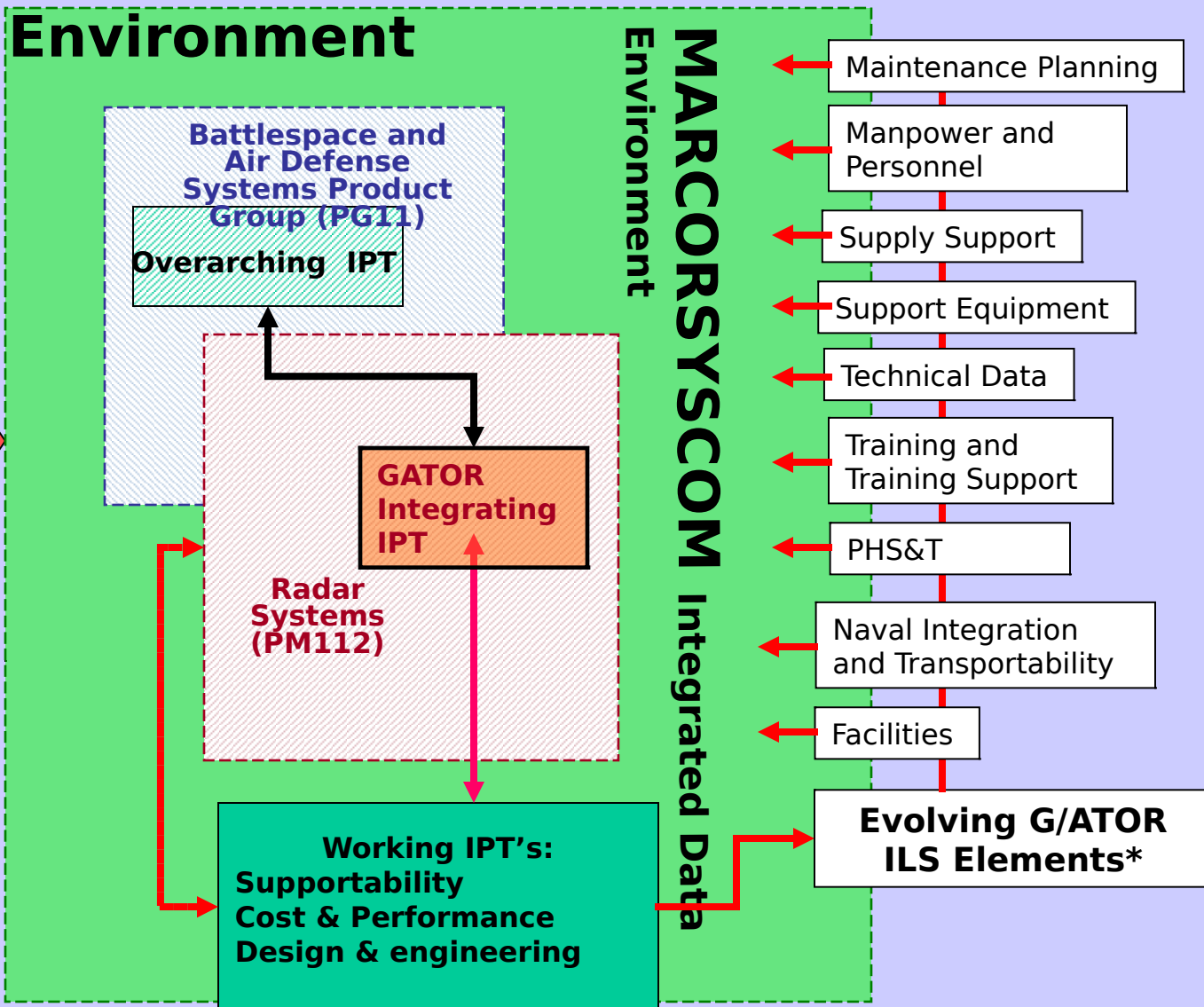
Integrated Product and Process Development

- Understand what you are currently doing.
- Set goals for each IPT
- Focus on TLCSM
- Choose Integrated Solutions
- Benchmark & Build through experience
- Measure Performance for Continuous Improvement
- Be willing to change!



NOTIONAL CONCEPT ON BUILDING IPT'S

Performance-Based Business Environment



* ILS Elements from the SUPPORTABILITY PLAN FOR THE GROUND AIR TASK ORIENTED RADAR, Draft, 6 Jan 04



The Business Case Analysis (BCA)

The BCA links performance levels and resource requirements which enables a much more intelligent budgeting process.

The BCA is a toolset for identifying Total Ownership Costs

The BCA has the goal of identifying the BEST VALUE

It is the BCA that helps determine the best choice for Product Support Integrators, and the parameters of the Performance Based Agreements!

Bottomline –

Senior leaders need all appropriate information to make good decisions. They will not stake their reputations simply on a good “story”.



What is a BCA ?



Until recently, BCA was not a common term in DoD

Formerly known by the terms: “*economic analysis; cost/benefit analysis; cost of ownership analysis; analysis of alternatives; feasibility study; staff study*”

“BCA is an extended form of cost/benefit analysis where the alternatives’ total costs for satisfying a business need are weighed against the alternatives’ total benefits to determine an optimum solution. BCA goes one step further than cost/benefit analysis and links each alternative to fulfilling the strategic objectives of the organization, compliance with performance measures and impact on stakeholders. BCA identifies which alternative allows an organization to optimize mission performance given cost and other constraints. It not only includes analysis of cost, but also addresses qualitative and subjective factors directly impacting the decision-making process, along with risk and sensitivity analysis. The output of a BCA is an analysis of all viable alternative business strategies, along with recommendations for proceeding with the best value alternative.”

Dr. Jacques Gansler

“A Business Case is a decision support tool that projects the likely financial results and other business consequences of an action. It shows the cash flow consequences, over time, and - most important - includes the methods and rationale used for quantifying benefits and costs.”



Why Go Through with a BCA ?

- **BCA's required by Statute for all proposed "Prime Vendor" support arrangements; and by USD/ATL**
 - **Section 346, 1999 NDAA, as amended by Section 336, 2000 NDA**
 - **13 Feb 2002 USD/ATL Memo to Services re: PBL Implementation Schedule**
- **There is no current standard OSD format (in work)**
- **BCA's have several uses in implimenting PBL**
 - **Assesing viability of overall strategy, workload allocation, and cost comparisons**

BCA's are a toolset of PBL, useful in many circumstances.

BCA Structure



A. Introduction

Defines what the case is about (the subject) and why (its purpose) the objectives addressed by the subject of the case.

B. Methods and Assumptions

Design elements analysis methods and rationale that fix the boundaries of the case (whose costs and whose benefits examined over what time period). Outlines the rules for deciding what belongs in the case and what does not, along with the important assumptions.

C. Business Impacts

The main business case results - financial and non-financial business impacts expected in one or more scenarios.

D. Sensitivity and Risks

Shows how results depend on important assumptions ("what if"), as well as the likelihood for other results to surface

E. Conclusions and Recommendations

Recommends specific actions based on business objectives and the results of the analysis.
From: "The Business Case Guide", by Dr. Marty J. Seimel, Solution Matrix, Ltd, 2002

Sample BCA Format



Executive Summary

Introduction/Overview
Subject, Purpose and Objectives
Background
Organization

Major Assumptions and Constraints
Scope of Analysis
Financial Metrics Used and Defined
Analysis Methodology
The Cost and Benefit Model Used
(Explanation of Cost Types and Categories)

Description of Alternatives
Costs and Benefits Over Time
Financial Analysis
Non-quantitative Factors, Criteria,
and Rationale for Their Use

Comparison of Alternatives (quantitative and qualitative)

Sensitivity Analysis
Risk Analysis

Conclusions and Recommendations
Results Rationale
Choice of Scenarios for Implementation
Strategy and Tactics to Optimize Results

Introduction

Methods and Assumptions

Business Impacts

Sensitivity and Risks

**Conclusions &
Recommendations**



Performance-Based Agreements (PBA) Notional Approach

Strategic

**Program
Manager
(PM)**

- ❖ Agree to provide the negotiated Operational Availability, Mission Capability, Operational Readiness
- ❖ Agree to provide the Force Provider a voice on the Supportability IPT (SIPT)
- ❖ Agree to provide funding to the PSI commensurate with the defined requirements
- ❖ Agree to provide the PSI a voice on the Supportability IPT (SIPT)

**Product
Support
Integrator
(PSI)**

- ❖ Agrees to perform the duties of the PSI as identified in the PBA
- ❖ Agree to serve on the SIPT
- ❖ Agree to comply with Contractors on the Battlefield policy
- ❖ Agree to maintain a transparent supply chain with the field level
- ❖ Agree to provide access to all performance data
- ❖ Agree to integrate the supply chain activities of all Product Support Providers (PSPs)
- ❖ Agree to search for increases in reliability

**Notional/
Sustainment**

- ❖ Agree to provide the funds for products and services rendered
- ❖ Agrees to perform all field level operations in accordance with established Field Manuals and Technical Manuals
- ❖ Agrees to perform all field level maintenance in accordance with established Technical Manuals, Lube Orders, etc.
- ❖ Agrees to using trained operators/maintainers, and/or that operators/maintainers receive proper training
- ❖ Agrees to perform all supply chain operations in accordance with established policy
- ❖ Agrees to perform other logistics transactions in accordance with established policy

**Force
Provider**

Field

BARRIERS AND METRICS

Contract Types:

- Firm Fixed Price
- Cost Plus Incentive Fee

BCA:

- Economic Analysis (EA)
- Best Value Analysis (BVA)
- Business Case Analysis (BCA)

Barriers:

- Funding Flow
- Stability of Funding
- Funding for Long Term Contracts
- PBL Becomes “Must Pay” Bill
- Business Risks
- Working Capital Fund (WCF)
- Guidance Not Evolving Rapidly Enough
- Incentivizing/Disincentivizing Organic Sources
- Statutory Rules
- Contractor Limitation on Unit Level Performance
- Contractors on the Battlefield Policy
- Lack of PBL Training
- Lack of or cost of Data Collection System

Metrics:

- Non-Mission Capable Supply (NMCS)
- Mission Capable Deliveries
- Non-Mission Capable Maintenance (NMCM)
- Supply Availability
- 10% Reduction in O&S Costs
- Customer Wait Time (CWT)
- Mean Time To Repair (MTTR) Days
- Fill Rate
- Operational Availability (Ao)
- Operational Readiness Rate (ORR)
- In-Flight Abort Rates
- Cost of Flight Hour
- Turn-Around-Time (TAT)
- Logistics Maintenance Ratio (LMR)
- Training Equipment Availability Rate
- Built In Test (BIT) Accuracy
- Cost Per Mile to Operate
- Operational Effectiveness
- Contractor Performance Factor (CPF)
- Non-Chargeable Down Time (NCDT)

Developing a PBA

Overview

- **Purpose**
 - Document, in terms of performance, the relevant support requirements
 - Document what that specified level of performance will cost.
- **Background**
 - Brief description of program and decision criteria in choosing this solution.
- **Metrics**
 - Used to measure how well a program is meeting the objectives
 - Identification of realistic, quantifiable, and measurable metrics
 - May change as requirements of the program evolve
 - Methodology:
 - Use of warfighter performance requirements to influence the design
 - Identification of all stakeholders roles and responsibilities (IPT's) , for the collection, processing, analysis and reporting of performance data
 - Identification of the source and data to be collected
 - Formal performance review & dispute resolution process

Fightin' words: "Where does PBL fit in with how we are doing business today?"

Developing a PBA

Overview (continued)

- **Roles and Responsibilities**

- Includes Program Office, warfighter, Product Support Integrator Lead, Product Support Integrator Team.

- **Schedule**

- Major milestones and criteria for demonstrating successful accomplishments

- **Period of Performance**

- Not a one-time event.
- Formally establishes an ongoing relationship between Government/Industry and the Warfighter throughout the weapon system life cycle.
- Will require continual management throughout the weapon system life cycle
 - System evolution may lead to requirements change

- **Approving Officials**

- Should include:
 - Program Executive Office
 - Warfighter/User
 - Product Support Lead Integrator
 - Program Manager

Developing a PBA

Template

- Performance Based Agreement Sections
 - Objective and Scope
 - Content
 - Roles & Responsibilities
 - Performance Measures
 - Revisions and Flexibility
 - Accountability and Oversight
 - Existing Agreements
 - Contingency Agreements
 - Execution of Agreement

Performance Based Agreements

- **Preface**
 - Provides a common framework, a 'checklist' to consider, that may involve one or more organizations
 - Guidance, not direction...as the PBA matures, "best practices" will evolve and define the necessary PBA agreement restructuring.
- **Consider the following elements when developing a Performance Based Agreement:**
 - Objective and Scope
 - Content
 - Roles and Responsibilities
 - Performance Measures
 - Revisions and Flexibility
 - Accountability and Oversight
 - Contingency Agreements
 - Execution of Agreement

PBA Objective and Scope

- Objective: Establish realistic, quantifiable, and measurable metrics between MARCORSYSCOM and Product Support Providers
- Scope: PBA will address a basic set of criteria:
 - Document customer requirements and establish a set of mutual expectations.
 - Shall document the intent of the parties to review specific period of performance for the purpose of measuring the effectiveness of the product support providers.
 - Ideally expressed in contract-like terms which outline the desired outcome.
 - Incentives and Penalties

PBA Intent

- MARCORSYSCOM and the customer sign the agreement to participate in the collaborative effort to design, build, field, and support G/ATOR
- Clear identification of the customer performance and support requirements that will be applied
- The program requirements will be quantified as metrics

PBA Roles & Responsibilities

- Should be clearly delineated in each individual PBA so that each stakeholder clearly understands the performance level to which they've subscribed.
- Key aspects include:
 - Signature authority and the ultimate responsibility for monitoring, managing and executing all portions of the PBA agreement lies with the individuals designated therein.
 - Responsibility for executing the portions of the agreement specific to the PBA and setting the detailed arrangements for accomplishing the execution of each portion of the agreement, documenting performance targets, and monitoring through measurements lies with the signatories to the agreement.

PBA Performance Measures

- Should be carefully evaluated and selected to measure the specific outcome that have meaningful impact on acquisition strategy.
- Potential performance measures:
 - Operational Availability (Ao)
 - Operational Readiness Rate (ORR)
 - Turn-Around-Time (TAT)
 - Logistics Maintenance Ratio (LMR)
 - Built In Test (BIT) Accuracy
- Should establish timelines for the performance reviews.
 - identification of metrics
 - data collectio/validation
 - base lining processes
- Should include procedures for reconciliation of differences
 - Bring in your legal staff at this point!
- Feedback mechanism(s) should include Notification and Resolution procedures as well as Escalation Procedures.

PBA Revisions and Flexibility

- Unanticipated changes may necessitate a renegotiation
- Flexibility enablers:
 - Envision and document a range for each metric to accommodate for fluctuating resources
 - PBA's are long term(7-10 years):review periodically!
 - Synchronize the PBA review with the planning and budgeting process (POM)
 - Subsequent reviews should not require a "clean sheet negotiation" effort
- Defining the resource level required to support specific performance thresholds is a significant step towards reducing Total Ownership Cost

PBA Accountability and Oversight

- PBAs provide for equitable and consistent expectations and enforcement for all parties
- Guidelines:
 - Do you have adequate resources (i.e. funding, manpower support) necessary to achieve the required support levels?
 - Are incentives for performance by organic providers considered and clearly defined within scope of PBA?
- **Contingency Agreements**
 - PBAs should include provisions for modification for agreed-upon periods of time under contingency situations
 - This including clauses that would be activated as a result of mission-related contingencies.

PBA Summary

- Performance Based Agreements are a critical element in implementing PBL
- Define Expectations of Force Provider
- Define range of support requirements
- Basis for negotiating support contracts
- Ensure accountability in meeting Warfighter requirements
- Getting them right is critical!

RECOMMENDATIONS

- Organize IPT's around things that are core to your business, not around functions.
 - Set goals for each IPT.
- Benchmark, stay current, be willing to change, keep improving
 - Execute with excellence.
- Understand what you are currently doing
 - Focus on Total Life Cycle Systems Management.
- Choose integrated solutions.
 - Measure performance for continuous improvement.
- Get the right information to the right people.
 - Build through experience.





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